REMARKS

Reconsideration and allowance of the claims of the present application are respectfully requested. Claims 30-44, 56, 57 and 59-86 are presently pending.

Before addressing the outstanding rejections, it is to be noted that applicants have amended Claim 30 by reciting that the present process produces a non-temper fat composition. Support is found on Page 12, Lines 6-13 of the instant specification. In addition, Claim 30 has been amended to incorporate therein the subject matter of Claim 45.

No new matter has been added to the application.

In the outstanding Official Action, Clams 30-44, 46-54 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 3,686,240 to Kawada et al. ("Kawada") as further allegedly evidenced by the commentary in the specification at page 10, lines 3-21 and by the "Fractionation of Palm Oil" by Deffense et al. ("Deffense"), JAOCS, Vol 62, No.2, page 376-385, 1985. In addition, Claims 55-57 and 59-86 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants have amended the claims which when considered with the comments hereinbelow, are deemed to place the present case in condition for allowance. Favourable action is respectfully requested.

Applicants respectfully submit that the present invention is patentable over the cited references, either alone or in combination.

In support of the rejection of Claims 30-44, 46-54, the Office Action cites Kawada and Deffense.

The rejected claims are directed, inter alia, to a process for the production of a non-temper fat composition which comprises subjecting a starting fat composition to catalytic hydrogenation in the process a non-trans specific Ni-containing hydrogenation catalyst until a first fat having a trans fatty acid content of less than 15 wt. % and an increase of C18-0 of less than 1 wt. % is obtained, said first fat being incorporated in the fat composition, wherein said fat composition is a non-temper confectionery fat or bakery fat, wherein said starting fat composition contains palm oil or a palm oil fraction and has the following composition

(a) a glyceride composition with

- a S_2U content between 47 and 75 wt. %,
- a $SU_2 + U_3$ content < 40 wt. %,
- a S_3 content between 1 and 15 wt. %,
- a diglyceride content of 3 to 12 wt. %,

the glyceride contents being expressed as wt. % with respect to the total amount of di-and triglycerides in which S means a saturated fatty acid with a hydrocarbon chain length of 14-24 carbon atoms and U means unsaturated fatty acid with a hydrocarbon chain length of 14-24 carbon atoms; and

(b) a total content of unsaturated fatty acids of less than 55 wt. %.

In other words, the subject matter of the rejected claims is directed to a process of making a fat that is a non-temper fat.

Kawada, in contrast, discloses a process for preparing a cocoa butter substitute from palm oil. The resulting product in Kawada is a tempering fat composition. See Column 1, lines 15-25 of Kawada.

Kawada discloses a process for the production of a cacao butter substitute (see col. 1, line 16) from palm oil, in which the palm oil is subjected to a pre-treatment process to prepare a palm oil mid fraction. To obtain the palm oil mid fraction, in a first step, the palm oil is dissolved, crystallized and the high melting fraction is filtered off; in a second step, the filtrate is cooled, a second crystallization and filtration is carried out, and the thus obtained fluid fraction is further used. This fluid fraction is called the middle melting point fraction. See "Bailey's Industrial Oil and Fat Products, Vol. 3, 5th Ed., Wiley-Interscience Publication, NY, NY, 368-391 (1996) (hereinafter "Bailey's"). On page 382 and in particular page 383, lines 4-7, it is disclosed that cocoa butter substitutes can be produced using a palm mid fraction, which is the same as a middle melting point fraction of palm oil. Further, on the bottom of page 381, it is explained that palm oil is a suitable source for the desirable SUS triglycerides useful in the preparation of cocoa butter substitutes. Bailey discloses the stable crystal from of a tempering fat "is the beta-type (SUS) which means that the fat needs tempering. See Bailey's, table 9.11, p 381 and last paragraph on 383, which refers to CBE and their beta polymorphs".

There are many differences between the process of the present invention and the process of the prior art. For example, unlike the process described by the prior art, the product of the present process is a non-temper fat. Further, the hydrogenation step in the present process is limited by restricting the increase of C-18-0 to less than 1 wt%. Moreover, the present process utilizes a different hydrogenation catalyst.

Each of these aspects will be discussed hereinbelow.

As recited in Claim 30, the fat produced in accordance with the present invention is a non-temper fat. It is so recited in the claims.

On the other hand, the fat prepared by Kawada et al. is a tempering fat.

As evidence that the product of the present process is a non-temper fat, while the product of the process described in Kawada is a tempering fat, attention is directed to the statements of Kawada and the Declaration of Cleenewerck ("Declaration"), previously submitted.

Kawada indicates that their product exhibits properties similar to cocoa butter, which is well known as a tempering fat (see Col. 1, lines 33-34 of Kawada). As stated therein,

> ... Therefore, it is important commercially to increase the yield of the middle melting point part or fraction which is suitable for use as a cacao butter substitute. Further, in addition to increasing the yield, it is also important to maintain the other necessary properties of the product as a cacao butter substitute; that is, the product should be solid at room temperature but it should rapidly melt near or at body temperature and, on blending with natural cacao butter, its melting point should not be lowered and it should not soften.

Thus, Kawada admits that its product does not lower the melting point of cocoa butter, and does not soften upon blending with natural cocoa butter. This characteristic is consistent with the product in Kawada being a tempering fat. For the significance of such an admission, attention is directed to the Declaration. In paragraphs 5-6 of the Declaration, the declarant refers to an excerpt from a general handbook on oil and fat products entitled "Bailey's Industrial Oil and Fat Products" vol. 3, 5th Ed, Wiley-Interscience Publication, NY, NY, year, p. 368-391 ("Bailey's"). The Declaration in paragraph 5 makes reference to page 381 of Bailey, where it is stated "...equivalents are fats that behave like and are compatible with cacao butter in any proportion. They do not alter the melting, processing and rheological properties of cocoa butter...". In fact, as indicated in Bailey's on Page 381, a tempering fat is compatible with cocoa butter in any proportion. On the other hand, a non-temper fat would not exhibit such characteristics. See paragraph 6 of Declaration.

Additionally, the procedure disclosed in Kawada for measuring the Solid Fat Index (SFI) is consistent with the product produced therein being a tempering fat. As described in Examples 1-2, the SFI was determined as follows: after once completely solidifying the sample in ice water bath, it was aged at 30°C for 3 days. See, Col. 4, line 58 of Kawada) and at 25°C for 3 days, respectively (Col. 4, line 53).

However, the standard procedure for SFI determination does not include an ageing process. See paragraph 6 of Declaration. Therefore, the fact that Kawada has added and mentioned the additional ageing step to the SFI- standard procedure is a clear indication that the fat produced from the process disclosed in Kawada needs stabilization or in other words needs tempering. The IUPAC standard methods for Solid Fat Content determination make a distinction between temper-types of fat and non-temper types of fat. For instance, IUPAC method 2.150b is for temper fats which includes an ageing step; whereas IUPAC method 2.150a is for non-temper fats which does not include such ageing step. Id.

Moreover, applicants submit that the fat obtained from the process disclosed by Kawada as tempering fat is evidenced by its full compatibility with cocoa butter in all mixing ranges. Because a tempering fat does not immediately crystallize in the stable form, but undergoes re-crystallization when not subjected to a tempering step, the SFC method for measuring the SFC content of a tempering fat includes an ageing step which allows the fat to form its most stable crystal form and avoid re-crystallization. Therefore, the ageing step disclosed in Kawada further proves that the fat obtained from the process disclosed by Kawada is a tempering fat. According to Kawada, the fat composition produced is subjected to an aging process at 30°C for 3 days. On the other hand, non-temper fat compositions are not subjected to such a temperature time-program when measuring the SFI.

As a further example that the product in Kawada is a tempering fat, attention is directed to Example 2 of Kawada. Specifically, Example 2 refers to Figure 3, curve 1, which is a straight line. This straight line shows that the melting point varies only to a minor extent when blending cacao butter with the cacao butter substitute.

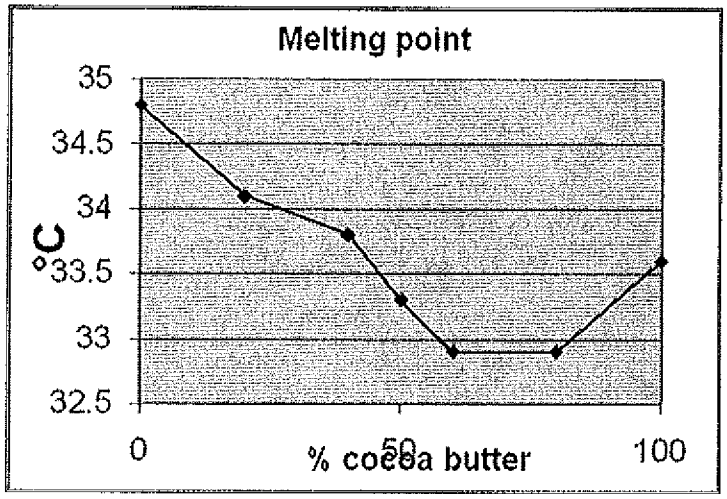
To further support that the fat composition of the present invention is different from that described in Kawada, experiments were conducted which compare the fat composition of the present invention with that described in Kawada, which are described in the Declaration.

Specifically, a representative fat composition prepared by the presently claimed process was obtained by the following process as described in paragraph 9 of the Declaration. A starting fat composition was utilized, having a glyceride composition as S2U: 75.74 wt. %; SU2 + U3: 17.03 wt. %; S3: 1.52 wt. %; and Diglyceride-content: 3.34 wt. %. Id. It was subjected to a hydrogenation reaction using a non trans specific catalyst Pricat 9910 according to the procedures described in the above-identified application.

The obtained product was a non-temper fat ("Fat NR-1") with the following characteristics (Solid Fat Content (SFC) according to IUPAC 2.150-a): Trans Fatty Acids (TFA) content: 4.09 wt. %; SFC at 20°C: 67.5 %; SFC at 35°C: 3.4 %. Fat NR-1 was then subjected to a number of tests in combination with cocoa butter (CB). Id.

Declarant had the following assays conducted to measure the melting point of this product. See, paragraph 10 of Declaration. The melting point of Fat NR-1 was determined as the pure fat and as a mixture in different blends with cocoa butter, according to the method described in Kawada, i.e., by first cooling to 5°C and keeping it overnight, then aging for 3 days at 30°C, followed by measuring the melting point at the blend. Id. The results are shown in Graph 1. Id.

Graph 1

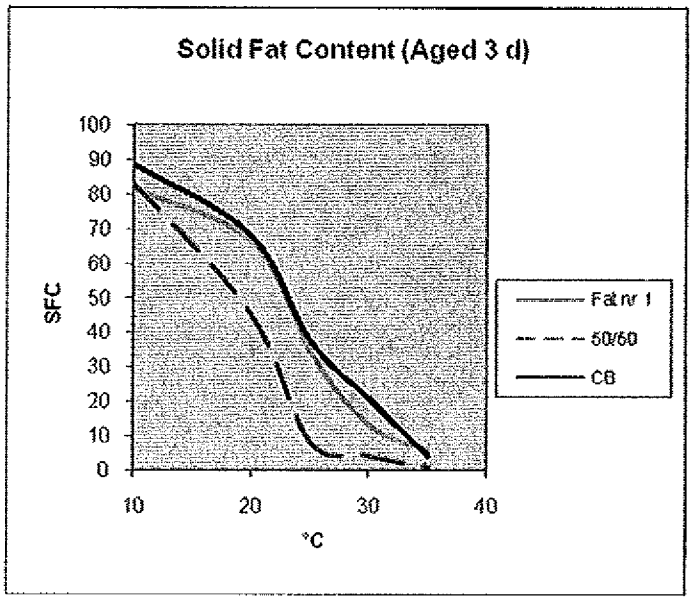


As testified by declarant in paragraph 11 and clearly shown from Graph 1, "in certain blending proportions, the melting point of the blend is lower than the melting point of cocoa butter (which is 34-35°C for the beta-type, See Table 9.9 at page 371 of Bailey's). Id. Declarant testifies that this means that the fat composition Fat NR-1 of the present application does not fulfill the requirements of Kawada. If the product were a fat prepared in accordance with the teachings of Kawada, Kawada explains in col. 1, lines 71-72 that the melting point should not be lowered and the blend would not soften upon blending with natural cocoa butter. Therefore, since the fat obtained according to the presently claimed process does not have the melting point characteristics of Kawada, it is clear that such fat composition prepared in accordance with the present invention is a non-temper fat, whereas the fat composition disclosed in Kawada is a tempering fat.

Another test was conducted that measured the solid fat content of Fat NR-1. See paragraph 12 of Declaration. The solid fat content was measured with NMR, applying the same cooling and aging procedure as described in Kawada, i.e. first solidifying in ice water, then aging for 3 days at 30 °C, followed by measuring the solid fat content of the Fat NR-1 and of a 50/50

mixture of the Fat NR-1 with cocoa butter (the same combinations as described in example 1 of Kawada). The results are shown in Graph 2.

Graph 2



Declarant testifies in paragraph 13 that Graph 2 shows that Fat NR-1 showed a strong eutectic effect, the solid fat content of the 50/50 combination is much lower than the two components individually. Declarant further testifies that a 50/50 mixture of cocoa butter and a tempering fat would not exhibit this eutectic effect for the reason explained by Bailey's, since a tempering fat is compatible with cocoa butter. Id. According to Declarant, this data show that Fat NR-1 is not a tempering fat, as disclosed in Kawada, but is rather a non-temper fat composition.

Furthermore, another test conducted was the chocolate application test. See paragraph 14 of Declaration. This assay investigated whether Fat NR-1 is suitable for use as a cocoa butter substitute by utilizing the process for making chocolate which includes a tempering step with fat NR-1 and cocoa butter. A coating was prepared comprising Fat NR-1 and cocoa butter in a ratio of 85.4% / 14.6%. A dark chocolate product (tablet) with 100% cocoa butter

was prepared as a reference. The products were prepared as follows: after the fat had been made molten, all ingredients, except part of the fat, were mixed and roll refined. Then the mixed ingredients were further homogenized with the rest of the fat in a mixer with heated jacket at a temperature of 40°C. Samples of this blend were taken and tempered at different conditions. For each sample, the viscosity, and the minimum and reheating temperature applied during tempering were recorded. The tempered products were moulded, cooled for 30 minutes at 5°C and thereafter for 30 minutes at 15°C, following which the products (tablets) were de-moulded. The de-moulding properties (shrinkage) were also checked. Thereafter the products were stored in an incubator at 20°C. The appearance of the products was checked after 3 weeks. The results of these tests are summarized in Table 4.

Table 4

Fat NR 1					visual appearance	
	T min	T reheat	viscosity	demoulding	after demould	after 3 weeks
test 1	26.5	30.5	OK	very bad	OK	bloom
test 2	24.3	26.5	OK	very bad	OK	bloom
test 3	23.8	25.9	high	bad	start bloom	bloom
test 4	23.8	25.8	high	reasonable	start bloom	bloom
cocoa butter						
	26.5	30.5	OK	good	OK	OK

Declarant testifies in paragraph 15 that Table 4 shows that none of the tempering conditions utilized gave a fat composition which when mixed with cocoa butter gave a stable product. The viscosity was found to be too high to achieve adequate tempering, and all products showed quick fat blooming (white surface), indicating that the fat was not stabilized properly. Therefore, as testified by Declarant in paragraph 15, it is clear that Fat NR-1 can not be utilized

by Kawada. As such, this experiment confirms that Fat NR-1 is a different type of fat than the fat disclosed in Kawada.

The different characteristics of the fat compositions of the present application and the fat compositions disclosed in Kawada are further established by the following experiment. See paragraphs 16 and 17 of Declaration. A representative fat composition according to the above-identified application, identified as Fat NR-2, was prepared starting from a fat with the following glyceride composition: S2U: 69.51%; SU2 + U3: 18.57%; S3: 1.29 %; Diglyceride-content: 8.85 %. The starting fat was hydrogenated with a catalyst Pricat 9910 and gave a fat composition with the following characteristics: TFA-content : 7.71 % ; SFC 20°C : 71.1 % ; SFC 35°C : 11.3 %. Fat NR-2 was then used to make a confectionery coating using the ingredients in the amounts set forth below in Table 5.

Table 5

Coating Recipe	%
Fat	34.8
Sugar	49.8
Cocoapowder 10/12	15
Lecithine	0.4
Vanilline	0.02

As Declarant testified in paragraph 17, the procedure utilized for the preparation of the above coating was the same as described above in the chocolate application test, except that no tempering was applied before moulding. Id. The tablets could be easily de-moulded. Id. The resulting tablets were then stored in an incubator at 20°C to check their stability. After 9 months storage, the tablets still exhibited no fat bloom (no white appearance). Id. Further, no crystals or defects were seen at the surface and the tablets remained very glossy. Id.

To demonstrate the difference with cocoa butter, the following tests were conducted: a molten dark chocolate, containing only cocoa butter and no confectionery fat, was moulded and solidified applying the same cooling procedure as given above, but without any tempering step. The result was that big crystals appeared at the surface of the tablets with cocoa butter in less than one day.

As a comparison, declarant had repeated the experimental described above, except tempered cocoa butter, as in Kawada, was utilized. See paragraph 18. Its appearance was very similar to the one made with the Fat NR-2. Therefore, the conclusion is that the fat composition obtained from the present application is stable without tempering, and thus is a non-temper fat. On the other hand, the fat composition in Kawada is not stable without tempering.

The Declarant thus concludes in paragraphs 19 and 20 that the experiments show that the fat composition prepared in Kawada and the fat composition prepared in accordance with the present application are quite different. The fat prepared in Kawada is a tempering fat, while that produced in accordance with the present application is a non-temper fat. Thus, the fat produced in accordance with the present application has different characteristics and properties relative to the fat described in Kawada. As such, the conclusion is compelling that fat produced by the present process is not taught, disclosed or suggested by Kawada. Moreover, the process of preparing the non-temper fat composition of the present invention is not taught, described or suggested by the process described in Kawada since the latter process produces a tempering fat and not a non-temper fat, as claimed.

The Office Action indicated, that the showing in the Declaration is not commensurate in scope with the claimed subject matter. However, the point of the showing was exemplary to show with representative examples the differences between a tempering fat and a non-

temper fat. As the product claimed is a non-temper fat, representative examples, such as the ones prepared in the Declaration, clearly shows the difference in behavior between a tempering fat and a non-temper fat. The tests described hereinabove clearly demonstrate that difference.

Applicants respectfully submit that the starting fat composition used in the presently claimed process is different from that of Kawada for several reasons below:

1. Kawada does not disclose the triglyceride composition of the fat that is subjected to hydrogenation. In Kawada, use is made of a palm mid fraction. Palm oil is subjected to a fractionation to obtain the palm mid fraction. As palm oil is a natural product, its composition will vary. Moreover, the fractionation process may be carried out in several ways and thus usually not result in end products with the same composition.

2. The starting fat composition of the present invention contains 3-12 wt. % of diglycerides. In contrast, it is nowhere disclosed in Kawada that the fat composition that is subjected to hydrogenation contains diglycerides, let alone the specific weight percentages of diglycerides. Further, Kawada does not discloses that the content of unsaturated fatty acids in the starting fat composition, which is subjected to hydrogenation, is less than 55 wt. %.

Moreover, Kawada utilizes a different catalyst. As indicated in the Office Action, the hydrogenation process utilized in Kawada is a copper-chromium manganese oxide catalyst. Kawada discloses, that it controls the amount of trans fatty acids. Kawada discloses that

> ...it is necessary to keep the amount of the trans-acid less than 5 percent by weight. A trans acid content higher than 5 percent by weight will cause remarkable changes when the cocoa butter substitute is mixed with natural cocoa butter and the desirable taste and feel will be reduced. In order to control the formation of trans-acid so that less than 5 percent is formed in carrying out the process of the present invention, the hydrogenation should be performed under atmospheric pressure or under an elevated pressure in

> the presence of a copper-chromium manganese oxide catalyst...

See Column 2, Lines 45-58 of Kawada.

Unlike the process used in Kawada, the catalyst in the present process utilizes a non-trans specific Ni-containing hydrogenation catalyst. This is neither taught or disclosed in Kawada. Moreover, unlike Kawada, the process is continued until the first fat having the characteristics recited in Claim 30 obtained.

It is to be noted that the Office Action did not reject Claim 45. It is thus in agreement that the incorporation of Claim 45 into Claim 30 is patentable over the cited art.

Further, there are other differences in the process of the present invention and that of Kawada which are not suggested therein.

Kawada describes a process for producing cacao butter substitutes (which require tempering) by subjecting palm oil or a fraction thereof to a hydrogenation. More specifically, Kawada subject the middle melting point fraction to hydrogenation. According to Kawada, hydrogenation should be carried out to minimize formation of trans-fatty acids during hydrogenation (col. 2, l. 41-44), because remarkable changes will occur when the cacao butter substitute is mixed with cacao butter (col. 2, l. 49-52). A further important reason why trans fatty acids should be minimized is that products containing them are difficult to temper as Kawada relates to tempering fats.

Claim 30 *et seq.* recite that the hydrogenation of the starting fat is carried out in such a way that any increase of the C18-0 fatty acid content of the fat composition during hydrogenation is limited to less than 1 wt. %. Kawada does not teach or suggest such a limitation:

Kawada teaches that formation of trans fatty acids during hydrogenation should be limited. Thus Kawada does not contemplate that hydrogenation is be carried out in such a way that formation of C18-0 fatty acids, i.e. formation of saturated C18 fatty acids from unsaturated C18 fatty acids, is limited. In other words, the present process minimizes the amount of saturated fatty acids produced.

As is explained on page 11, line 5-10 of the instant application as filed, the risk of increasing trisaturated triglycerides using the present process is negligible. This is not disclosed or contemplated in Kawada.

Kawada does not teach or suggest a controlled hydrogenation of a fat composition as recited in claim 30, whereby "controlled" indicates that the hydrogenation is carried out in such a way that

a) conversion of unsaturated non-trans fatty acids into unsaturated trans fatty acids is limited, and

b) simultaneously conversion of unsaturated fatty acids into saturated fatty acids is limited.

In fact, the following comparisons were made using representative examples of Kawada and the present application. This distinction becomes clear from the following comparison :

Kawada	I Difference in Iodine value before and after hydrogenation	II Difference in trans fatty acid content, before and after hydrogenation	Ratio II/I
Example 1.1	8.8*	2.7	0.31
Example 2	7.7*	1	0.13
Example 3	8*	4	0.50
Present invention			
Example 4	1.7	2.7	1.59
Example 6	6.3	7.62	1.21
Example 12	2.4	3.52	1.47

* calculated from value before hydrogenation given in examples and after hydrogenation calculated from figures on page 1 of Kawada.

The iodine value is a common test in organic chemistry which provides the mass of the iodine in grams that is consumed by 100 grams of a chemical substrate. It is a test to determine the amount of unsaturation in a chemical substance, such as the amount of carbon-carbon double bonds which react with the iodine compounds. A substance having more carbon-carbon double bonds have a higher iodine value. A large difference in iodine value indicates that a large amount of unsaturated fatty acids are hydrogenated into saturated fatty acids. The difference in iodine values before and after hydrogenation is representative of the amount of unsaturated fatty acids that is hydrogenated into saturated fatty acids, i.e., the amount of saturated fatty acids that are generated. For the fats in Kawada, this difference in iodine value before and after hydrogenation is larger than that of the present invention signifying that Kawada generates more saturated fatty acids during the hydrogenation process than the present process. As clearly shown by the data, in Kawada, the iodine values were higher than in the claimed invention, signifying that, for example, the amount of increase of C-18-O is not limited upon hydrogenation. In Kawada the difference in iodine value before and after hydrogenation is quite

high, which means that there is an increase of saturated fatty acids in its process. In the present invention this has been limited.

Further, the process step of the present invention is not taught, described or suggested by Kawada. In the present invention, the hydrogenation is carried out in a quite specific way. Specifically, according to Claim 30, the hydrogenation is carried out in such a way that the increase of C18-0 upon hydrogenation is less than 1 wt. %. This means that hydrogenation is carried out in such a way that the formation of fully saturated fat is limited. Natural fats contain C18-1, C18-2 and possibly C18-3 unsaturated fatty acids. According to the present invention, hydrogenation is carried out in a such a way that the increase of C18-0 upon hydrogenation is less than 1 wt.%. This feature is important because saturated fatty acids as well as trans fatty acids have adverse health effects. In this regard, Kawada does not have any teaching or suggestion that hydrogenation is carried out in a such a way that the increase of C18-0 formation is to be limited, e.g., less than 1 wt.%. Kawada merely teaches to carry out hydrogenation in such a way that the trans fatty acid content is not above 5 wt.%.

Although Kawada and the present process controls the amount of trans fatty acids, as shown by the values of the second column, the amount of hydrogenation of unsaturated fatty acids to saturated fatty acids in Kawada is significant, wherein in the present invention, the generation of saturated fatty acids from unsaturated fatty acids is controlled. This is shown by the ratio of I/II in the third column. This parameter shows that in the Kawada process, formation of saturated fatty acids is favored over formation of trans fatty acids. On the other hand, in the present process not only is the formation of trans fatty acid during hydrogenation controlled, simultaneously, formation of saturated fatty acids is controlled as well, as exemplified by the slight increase of C-18-0 during

the process being less than 1 wt%. As described above, the Kawada process does not control the amount of the formation of the saturated fatty acids.

In view of the above remarks, together with the results of the experiments as shown in the Declaration and hereinabove, it is clear that the fat composition in Kawada and the fat composition of the present application are quite different. The fat prepared in Kawada is a tempering fat, while that produced in accordance with the present application is a non-temper fat. Thus, the fat produced in accordance with the present application has different characteristics and properties relative to the fat described in Kawada. Moreover, as indicated hereinabove, the present process, including the catalyst used is different and not suggested by Kawada. Moreover, as shown above, the process of preparing the non-temper fat composition of the present invention is not taught, described or suggested by the process described in Kawada since Kawada does not teach or suggest the limiting the hydrogenation so that the increase of C-18-0 upon hydrogenation is less than 1 wt% or the use of the Ni catalyst claimed. As such, the conclusion is compelling that the present process is not taught, disclosed or suggested by Kawada, a position with which the USPTO agrees.

Regarding the secondary reference, Deffense, applicants respectfully submit that the teachings in Deffense are not relevant. Specifically, Deffense is a general publication which discloses the triglyceride composition of palm oil fractions of different origins and fractions. It does not teach, disclose or suggest the presently claimed process where the resulted product is a non-temper fat or the fat composition prepared by said process, or a product containing said fat composition. Further, applicants submit that Deffense discloses the composition of palm oil after a single stage fractionation (see pages 377-378) and the composition after a double stage fractionation (see page 383). As shown from Deffense, the SU2 + U3 concentration of the palm oil fraction may

vary within wide ranges, e.g. from 34.1 – 51.6 %. Deffense does not disclose or suggest anything on hydrogenation. A review of Deffense clearly establishes that it does not even mention hydrogenation. Thus, the combination of Kawada and Deffense does not teach or suggest that hydrogenation would be carried out in such a way that C18-0 formation is limited to below 1 wt. %. Moreover, the combination would not teach or suggest a process of preparing a non-temper fat. Nor does the combination suggest or disclose the use of the non-trans specific Ni containing hydrogenation catalyst, as claimed.

Therefore, neither Kawada nor Deffense alone or in combination teach, disclose or suggest the present process.

Case law has held that a claim for obviousness under §103(a) depends on at least four underlying factual issues set forth in Graham v. John Deare Co. of Kansas City, 383 US 17 (1966): (1) the scope and content of the prior art: (2) differences between the prior art and the claims at issue; (3) the level of ordinary skill in the pertinent art and (4) evaluation of any relevant secondary considerations. A proper obviousness determination requires comparing the subject matter of the claims as whole to the prior art. In re Ochiai, 71 F3d 1565, 1569 (Fed. Cir. 1995). When done properly, this test inevitably becomes fact specific. Id.

When comparing the facts, it is apparent that neither the reactants nor the products are taught, disclosed or suggested by the cited references. As described hereinabove, the combination has an entirely different product. As described hereinabove, the product of the present invention is a non-temper fat, while that of the combination is a tempering fat. Further, the catalysts used are not suggested by the prior art in combination. Even though the combination may suggest hydrogenation, the combination does not teach, disclose or suggest the Ni containing hydrogenation catalyst used or carrying out of the hydrogenation in such a way that the increase of C-18-0 upon

hydrogenation is less than 1 wt%. The combination merely teaches carrying out the hydrogenation so that trans fatty acid is not above 5 wt%. Consequently, an analysis of the facts make it quite clear that the combination cannot teach, disclose or suggest the present process.

Attention is directed to an Official Gazette Notice, Guidance and Treatment of Product and Process Claims, dated February 28, 1996 ("Notice"). For the convenience of the USPTO, a copy is enclosed. The Notice acknowledges that an examination under '103 requires a highly fact-dependent analysis, which involves taking the invention as a whole and comparing it with the prior art. According to the Notice, taking the invention as a whole requires consideration of all claim limitations. Thus, language in a process claim which recites making a non-obvious product, for example, must be treated as a material limitation and motivation to make or use the non-obvious product must be present in the prior art for a '103 rejection to be sustained.

The Office Action admits that the product is unobvious. According to the Office Action, the prior art provides the process parameters, but does not make or use the product claimed. If the starting materials were the same and the process is the same, as alleged by the Office Action, one of ordinary skill in the art would expect that the products of the process of the prior art and the present process to be the same. But, the products are not the same. As shown above, by repeating the steps of the prior art, one would expect to make a tempering confectionery fat. Yet, the present process makes a non-temper fat. Such a result is completely unexpected, considering the teachings in the art and that the product therefrom is not described or suggested in the cited prior art. Therefore, the present process is patentable over the cited art, alone or in combination.

In view of the above remarks, applicants submit that the §103 rejection has been obviated, and thus reconsideration and withdrawal of the instant rejection is respectfully requested.

Pursuant to the rejection of claims 55-57 and 59-86 under 35 U.S.C. § 112, second paragraph, the Office Action alleges that the difference in solid fat content set forth in Claims 55 and 56 are indefinite "because the percent difference in solid fat is based on an unknown". The Office Action alleges that an amendment setting forth the solid fat content at 20°C and 30°C would overcome the rejection.

Applicants respectfully submit that the metes and bounds of the rejected claims are clearly understood by one of ordinary skill in the art. A requirement for 35 U.S.C. § 112, second paragraph is that one skilled in the art must be able to tell with a reasonable degree of certainty whether his or her conduct is within or outside the scope of the claim. See, S3 Inc. v nVidia Corp., 259 F3d 1364(Fed Cir 2001).

Claims 55 *et seq.* are product by process claims, that is, the product is defined by the process for preparing the product. Thus, the product contains the parameters described in Claim 30, including that it is a non-temper fat and that the trans fatty acid content is less than 15 wt %, and that there is an increase of C-18-O of less than 1 wt % relative to the starting material.

Claim 55 recites that the difference in solid fat content at 20°C versus 35°C is greater than 35%. Claim 55 further recites that the solid fat content can be determined according to the IUPAC method 2.150a.

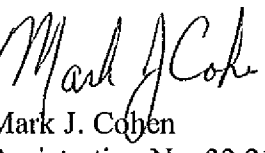
The potential infringer can measure the solid fat content of his alleged product at 20° and at 35°C utilizing this procedure. Based thereon, it can be determined if the difference in

solid fat content is greater than 35% by weight. Thus, contrary to the allegations in the Office Action, Claims 55 *et seq.* define the subject matter therein with sufficient clarity for one of ordinary skill in the art to understand the metes and bounds of the subject mater recited therein.

Thus, the rejection under 35 U.S.C. § 112, second paragraph, is overcome; withdrawal thereof is respectfully requested.

Therefore, in view of the Amendments to the Claims and the Remarks herein, it is respectfully submitted that the present case is in condition for allowance, which action is earnestly solicited.

Respectfully submitted,



Mark J. Cohen
Registration No. 32,211

SCULLY, SCOTT, MURPHY & PRESSER, P.C.
400 Garden City Plaza, Suite 300
Garden City, New York 11530
516-742-4343 Telephone
516-743-4366 Fax

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MJC/ech